Xian Su, Ph.D. candidate

Department of Computer Science Graduate Center

City University of New York

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PERSONAL INFORMATION

• Citizenship: China

• Permanent Residence: United States

RESEARCH INTERESTS

Distributed Computing, Coding Theory, Machine Learning, Big Data Analysis

EDUCATION

• Ph.D. candidate, Computer Science, June 2022 - present

Graduate Center, City University of New York

New York City, New York, United States

Supervisor: Jun Li

• Master of Philosophy, Computer Science, August 2020 - May 2022

Graduate Center, City University of New York

New York City, New York, United States

• Graduate student, Computer Sciences, January 2018 - July 2020

School of Computing and Information Sciences, Florida International University Miami, Florida, United States

Bachelor of Science, Electronic and Information Engineering, August 2012 - July 2016
 The Faculty of Information Science and Engineering, Ocean University of China Qingdao, Shandong, China

EXPERIENCE

 Research Assistant, September 2020 – present Graduate Center, City University Of New York

New York City, New York, United States

Research Assistant, September 2018 – August 2020

School of Computing and Information Sciences, Florida International University Miami, Florida, United States

Research Volunteer, February 2018 – June 2018

School of Computing and Information Sciences, Florida International University Miami, Florida, United States

Student Research Assistant, August 2014 – June 2016

College of Information Science and Engineering, Ocean University of China Qingdao, Shandong, China

• Internship, August 2015 – September 2015

HP, Jining International Software Talent, and Industry Base Jining, Shandong, China

Internship, August 2014 – September 2014

Hisense Multimedia Research Center

Qingdao, Shandong, China

• Internship, July 2013 – August 2013

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Foxconn Industrial Park of Yantai Yantai, Shandong, China

PUBLICATION

• Journal Publications

[1] **Xian Su**, Jared Parker, Xiaomei Zhong, Xiaodi Fan, Jun Li, "*Local Re-Encoding for Coded Matrix Multiplication*," in IEEE Open Journal of the Communications Society, vol. 3, pp. 1265-1279, 2022.

• Conference Proceedings and Workshop Papers

- [1] **Xian Su**, Brian Sukhnandan, Jun Li, "On Arbitrary Ignorance of Stragglers with Gradient Coding," in Proc. of the 43rd IEEE International Conference on Distributed Computing Systems (ICDCS), Hong Kong, July 18-21, 2023.
- [2] Xiaodi Fan, Pedro Soto, Yuchun Zou, **Xian Su**, Jun Li, "Sequence-Aware Coding for Leveraging Stragglers in Coded Matrix Multiplication," in Proc. of IEEE International Conference on Communications (ICC), Rome, Italy, May 28-June 1, 2023.
- [3] **Xian Su**, Xiaomei Zhong, Xiaodi Fan, Jun Li, "Local Re-encoding for Coded Matrix Multiplication," in Proc. of IEEE International Symposium on Information Theory (ISIT), Los Angeles, CA, June 21-26, 2020.
- [4] **Xian Su**, Xiaodi Fan, Jun Li, "*Dynamic Coding for Distributed Matrix Multiplication*," NeurIPS 2019 Workshop on Information Theory and Machine Learning, Vancouver, BC, Canada, December 13, 2019.

PRESENTATIONS

- [1] "On Arbitrary Ignorance of Stragglers with Gradient Coding," Oral, IEEE International Conference on Distributed Computing Systems, Hong Kong, China, July 19, 2023.
- [2] "Local Re-encoding for Coded Matrix Multiplication," Oral (online), Graduate Center Computer Science Community Event, October 23, 2020.
- [3] "Local Re-encoding for Coded Matrix Multiplication," Oral (online), IEEE International Symposium on Information Theory, June 24, 2020.
- [4] "Dynamic Coding for Distributed Matrix Multiplication," Poster, NeurIPS 2019 Workshop on Information Theory and Machine Learning, Vancouver, Canada, December 13, 2019.
- [5] "Dynamic Coding for Distributed Matrix Multiplication," FIU Computer Science Research Day, Poster, School of Computing and Information Sciences, FIU, Miami, FL, February 15, 2019.

PROFESSIONAL ACTIVITIES

- Review for Journal/Conference Manuscript Submissions
 - International Conference on Algorithms and Architectures for Parallel Processing (2023)
 - IEEE Transactions on Communications (2022)
 - IEEE Transactions on Computers (2022)
- Membership:
 - IEEE student member,
 - ACM student member

TEACHING EXPERIENCE

Adjunct Lecturer, August 2023 – present
 Department of Computer Science, Queens College, City University of New York, New York City

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- CSCI 111 231D: Introduction to Algorithmic Problem Solving
- Teaching Assistant, August 2020 present

Graduate Center & Queens College, City University Of New York, New York City

- CSc 85020: ST: Theoretical Computer Science (Coding Theory)
- CSc 84030: Big Data Analytics
- CSCI 381/780: Special Topics in Computer Science (Cloud Computing)
- CSCI 381/780: Special Topics in Computer Science (Parallel & Distributed Computing)
- CSCI 344/715: Distributed Systems/Computing
- CSCI 240: Computer Organization and Assembly Language
- CSCI 111: Introduction to Algorithmic Problem Solving
- Teaching Assistant, September 2019 May 2020

School of Computing and Information Sciences, Florida International University, Miami, Florida

- CDA 4101: Structured Computer Organization
- CDA 3103: Fundamentals of Computer Systems
- COT 3100: Discrete Structures
- CGS 3095 Technology in the Global Arena
- Student Teaching Assistant, August 2014 June 2016

College of Information Science and Engineering, Ocean University of China, Qingdao, China

- The Art of Sound
- The Art Practice of Sound
- Acoustic Measurement
- Explore the Underwater World

AWARDS

- 1. IEEE ICDCS Travel Grant, Hongkong, China, 2023
- 2. Google Cloud Research Credits Program, United States, 2023
- 3. CUNY Graduate Center Dissertation Fellowship Award, United States, 2023
- 4. CUNY Graduate Center Doctoral Student Research Grant, United States, 2022
- 5. IEEE INFOCOM Student Grant, online, 2022
- 6. NeurIPS Travel Grant, Vancouver, Canada, 2019
- 7. First Prize in the 4th National Marine Vehicle Design and Production Competition "The design of a bionic whale navigation system for gathering and processing marine drifting debris", Team leader, Qingdao, China, 2015
- 8. Third prize of the 14th "Challenge Cup" National College Students Competition, "A kitemimicked acoustic measurement platform of three-dimensional noise," Team leader, Qingdao, China, 2015
- 9. Third prize of the 14th "Challenge Cup" National College Students Competition, "The Design of a Multifunctional Fast Search and Rescue Platform," Team leader, Qingdao, China, 2015
- 10. National Training Program of Innovation and Entrepreneurship for Undergraduates, China, 2014

MENTORSHIP

- Eunhee Cho, Summer 2022
 - Master Student in Computer Science, Queens College, CUNY
- Brian Sukhnandan, Spring & Fall 2021
 - Undergraduate Student in Computer Science, Queens College, CUNY
 - Publication: Xian Su, **Brian Sukhnandan**, Jun Li, "On Arbitrary Ignorance of Stragglers with Gradient Coding," in Proc. of the 43rd IEEE International Conference on Distributed Computing Systems (ICDCS), Hong Kong, July 18-21, 2023.

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- Jared Parker, Summer 2020
 - Undergraduate Student in Computer Science, Virginia Commonwealth University
 - Publication: Xian Su, **Jared Parker,** Xiaomei Zhong, Xiaodi Fan, Jun Li, "*Local Re-Encoding for Coded Matrix Multiplication*," in IEEE Open Journal of the Communications Society, vol. 3, pp. 1265-1279, 2022.

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